GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL BE TROWEL FINISHED.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.5"Φ - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER.

BEND EACH END OF #4 STIRRUPS 4½" AND #5 STIRRUPS 6".

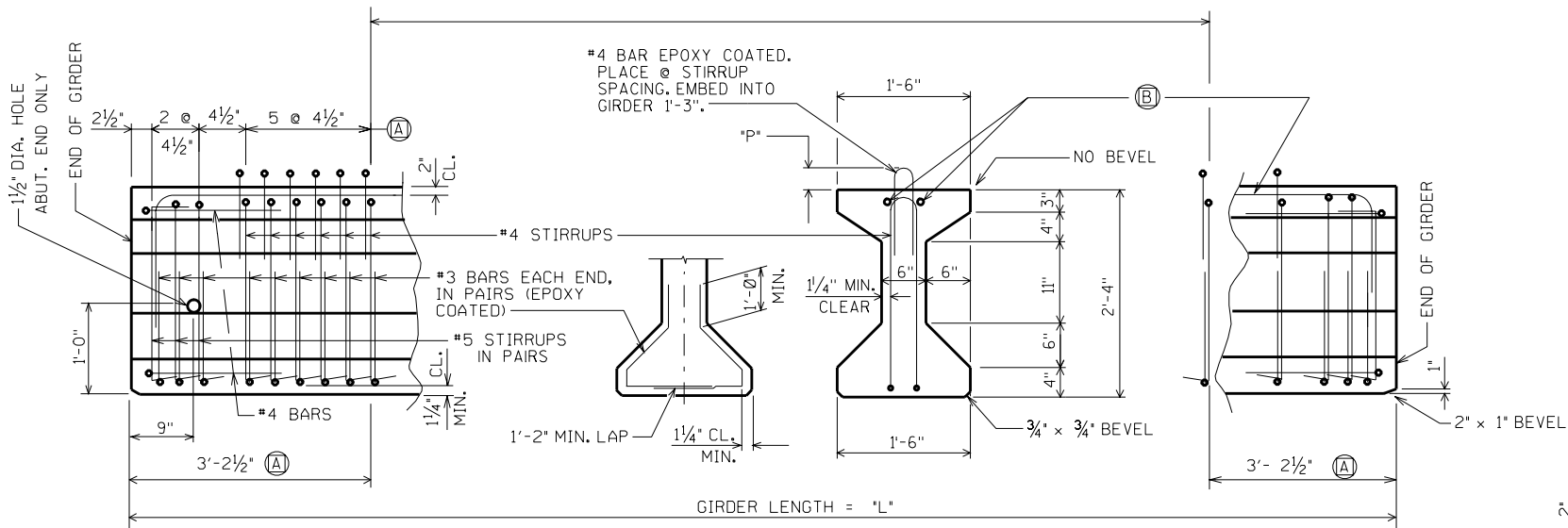FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, 2 OPTIONS ARE AVAILABLE:

1. USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

2. USE ASTM A615, GRADE 40 REINFORCEMENT AND A MODIFIED STIRRUP SPACING SUBMITTED TO AND APPROVED BY THE STRUCTURES DEVELOPMENT SECTION.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.
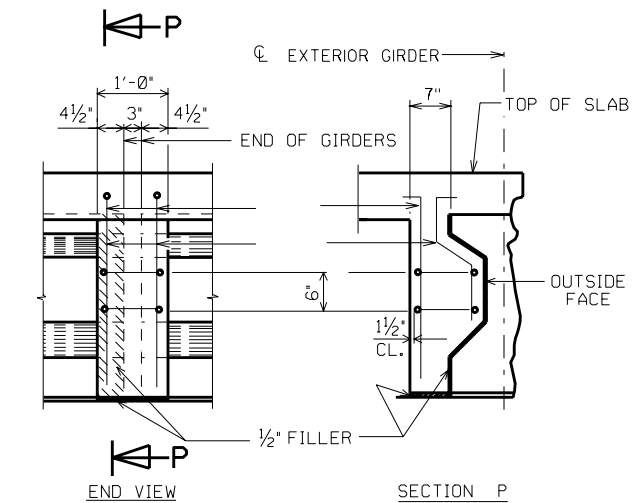
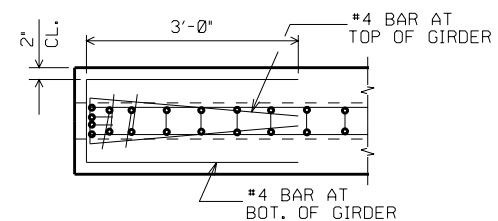WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A497.

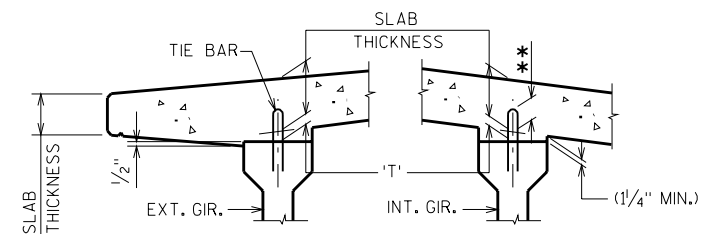## SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 2-BARS BEND DOWN 16 BAR DIA. AT ENDS

#4 BAR EPOXY COATED. PLACE @ STIRRUP SPACING. EMBED INTO GIRDER 1'-3".

#4 STIRRUPS

#3 BARS EACH END IN PAIRS (EPOXY COATED)

#5 STIRRUPS IN PAIRS

#4 BARS

1½" DIA. HOLE ABUT. END ONLY

NO BEVEL

¾" × ¾" BEVEL

2" × 1" BEVEL

1'-2" MIN. LAP

GIRDER LENGTH = 'L'

PILASTER DETAILS AT PIERS

Ⓒ EXTERIOR GIRDER

END OF GIRDERS

TOP OF SLAB

OUTSIDE FACE

½" FILLER

END VIEW

SECTION P

TOP VIEW OF GIRDER ENDS

#4 BAR AT TOP OF GIRDER

#4 BAR AT BOT. OF GIRDER

SLAB HAUNCH DETAIL

TIE BAR

SLAB THICKNESS

EXT. GIR.

INT. GIR.

(1¼" MIN.)

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR.
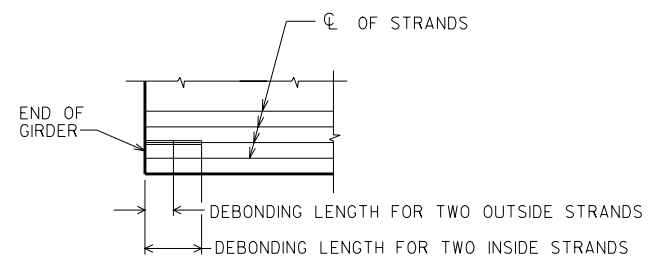
** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT Ⓒ OF SUBSTRUCTURE UNITS & AT ⅛ POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
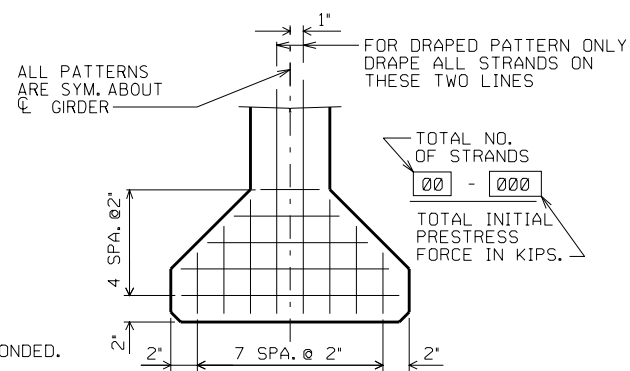+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

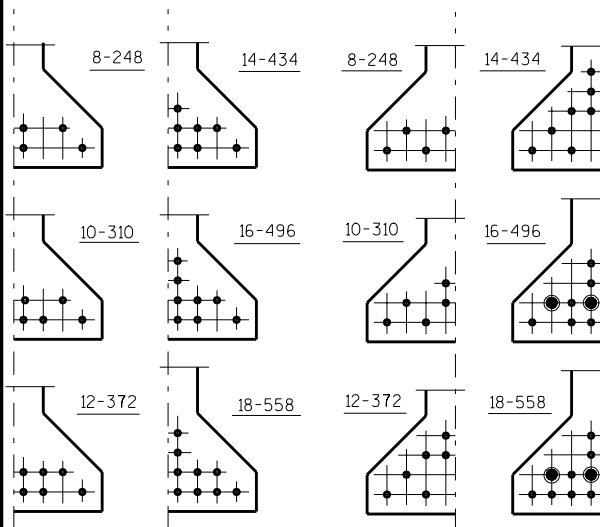NOTE: AN AVERAGE HAUNCH ('T') OF ___ WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

BOND BREAKER DETAIL

Ⓒ OF STRANDS

END OF GIRDER

DEBONDING LENGTH FOR TWO OUTSIDE STRANDS

DEBONDING LENGTH FOR TWO INSIDE STRANDS

SHOWING LENGTHS OF DEBONDING FROM END OF GIRDER.

DRAPED STRAND PROFILE

CENTER OF GRAVITY OF DRAPED STRANDS

SYM. ABOUT MIDSPAN OF GIRDER

HOLD DOWN POINT

END OF GIRDER

BOT. OF GIRDER

"A"

"B"

"C"

¼ PT. (0.25 L)
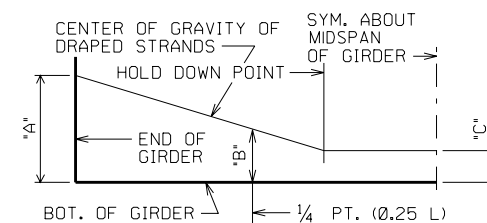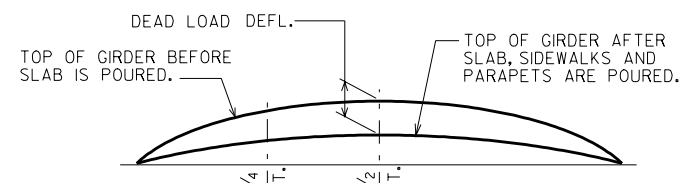
DEAD LOAD DEFLECTION DIAGRAM

DEAD LOAD DEFL.

TOP OF GIRDER BEFORE SLAB IS POURED.

TOP OF GIRDER AFTER SLAB, SIDEWALKS AND PARAPETS ARE POURED.

¼ PT.

½ PT.

DRAPED PATTERN
0.5"Φ STRANDS

UNDRAPED PATTERN
0.5"Φ STRANDS

8-248   14-434   8-248   14-434
10-310   16-496   10-310   16-496
12-372   18-558   12-372   18-558

LV = 1 2 3 4 5 6 7 8

● INDICATES STRAND TO BE DEBONDED. SEE "BOND BREAKER DETAIL"

TYP. STRAND PATTERN

ALL PATTERNS ARE SYM. ABOUT Ⓒ GIRDER

FOR DRAPED PATTERN ONLY DRAPE ALL STRANDS ON THESE TWO LINES

TOTAL NO. OF STRANDS
⬚⬚ - ⬚⬚⬚
TOTAL INITIAL PRESTRESS FORCE IN KIPS.

4 SPA. @2"

7 SPA. @ 2"

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)				CONC. STRGTH. f'c (P.S.I.)	DIA. OF STRAND	DRAPED PATTERN						UNDRAPED PATTERN	
		⅛	¼	⅜	½		"P"	TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	"A"	"B" MIN.	"B" MAX.	"C"	TOTAL NO. OF STRANDS	f'ci (P.S.I.) *